

Ucore Rare Metals Inc. (TSXV:UCU)

Deep Down in Louisiana, An REE Supply Chain Takes Shape

Initiating Coverage
May 2, 2025

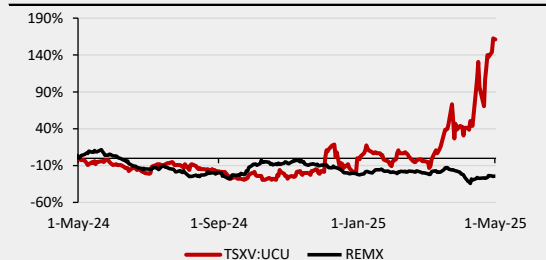
(Currency is C\$ unless noted otherwise)

Closing Price (C\$/sh)	\$1.96
Rating	BUY (S)
Target (C\$/sh)	NA
Return to Target	NA
52 Week Low / High (C\$/sh)	\$0.50 / \$2.26
CAPITALIZATION	
	Basic
Shares Outstanding (M)	72.4
Market Capitalization (C\$M)	\$142.0
Enterprise Value (C\$M)	\$150.3
Cash and Cash Equivalents (C\$M)	\$3.8
Total Debt (C\$M)	\$12.1

STOCK CHART



RELATIVE PERFORMANCE



RELATIVE VALUATION	EV (C\$M)
Ucore Rare Metals Inc.	\$150.3
Peers*	\$1,866.6

*S&P Capital IQ

MAJOR SHAREHOLDERS

Management (0.28%), Orca Holdings, LLC (14.72%)

DISCLOSURE CODE: 1,2

(Please refer to the disclosures listed on the back page)

Source: RCS, Company Information, S&P Capital IQ

Company Description

Ucore Rare Metals is a mineral processing and technology company that is engaged in establishing REE processing facilities in North America. It currently has an 80tpa RapidSX™ Commercial Demonstration Facility in Kingston, Ontario. Ucore plans to develop a series of replicable commercial REE processing facilities across North America, called Strategic Metals Complexes (SMCs), starting with a 2,000 tpa TREO separation and purification facility in Alexandria, Louisiana. Longer-term plans include ramping up the Louisiana SMC to 7,500 tpa and developing the 100%-controlled, Bokan-Dotson Ridge REE project in Alaska.

We are initiating coverage on Ucore Rare Metals Inc., with a BUY (S) rating and no target price. Ucore Rare Metals is advancing its Strategic Metals Complex (SMC) in Louisiana, with the objective of producing separated REE oxides from its proprietary, patent-pending RapidSX™ technology. This technology is currently being tested at a demonstration plant in Kingston and has the potential to process a variety of mixed REE feedstock, from 3x to 7x faster than conventional solvent extraction (SX) techniques. With endorsements from Natural Resources Canada (NRCan) and the US Department of Defense (DoD), the first SMC in Alexandria is targeting 2,000 tpa TREO production during Phase 1. **With greater adoption of REE-dependent technologies and geopolitical concerns driving demand for North American sourced components, we believe Ucore offers investors an unusual opportunity to gain exposure to a technology company, which could help plug the gap in the current North American REE supply chain.**

- **RapidSX™ technology has several advantages.** It promises 3-7x faster production of HREEs and LREEs than conventional SX from a variety of mixed REE feedstocks, including carbonates and oxides from ionic clays, bastnäsite and monazite. Furthermore, it does not require specialized equipment for construction.
- **North America lagging in REE processing capacity.** Despite ~40k tpa of primary REE production in the USA, there are no commercial HREE separation facilities in North America. Most of the world's REE processing capacity is concentrated in China, representing a major vulnerability of North America's supply chain for technologies like NdFeB magnets for electric motors, generators and medical devices.
- **Supported by the US DoD and NRCan.** It is contracted to receive US\$4M and C\$4.3M from the US DoD and NRCan, respectively, to demonstrate the HREE and LREE separation capabilities of its RapidSX™ technology. These programs are expected to continue until H1/26.
- **Goal to expand Louisiana SMC to 7,500 tpa TREO (ex-Ce and Y) in three phases.** Current Phase 1 production is targeting 2,000 tpa TREO with initial capex estimated at US\$65M. Ucore has secured a multi-decade lease for an 80,800 sq. ft. brownfield facility at the England Airpark, which provides access to port, roads, and a skilled talent pool, and potential government support of up to US\$15M.
- **Led by manufacturing and resource industry veterans.** Pat Ryan, P. Eng., the CEO, has over 25 years of experience in automotive OEM design and manufacturing. He is a recognized expert on global supply chains and vehicle electrification.

We are initiating coverage with a BUY (S) rating and no target price. We expect steady progress towards the commercialization of the RapidSX™ technology and construction and operation of the Louisiana SMC to drive share price appreciation in the coming years. **Upcoming catalysts:** 1) Completion of US DoD project (H1/25), and 2) Completion of NRCan LREE project (H2/25). **Technology development and monetization is inherently risky** and Ucore is subject to various risks.

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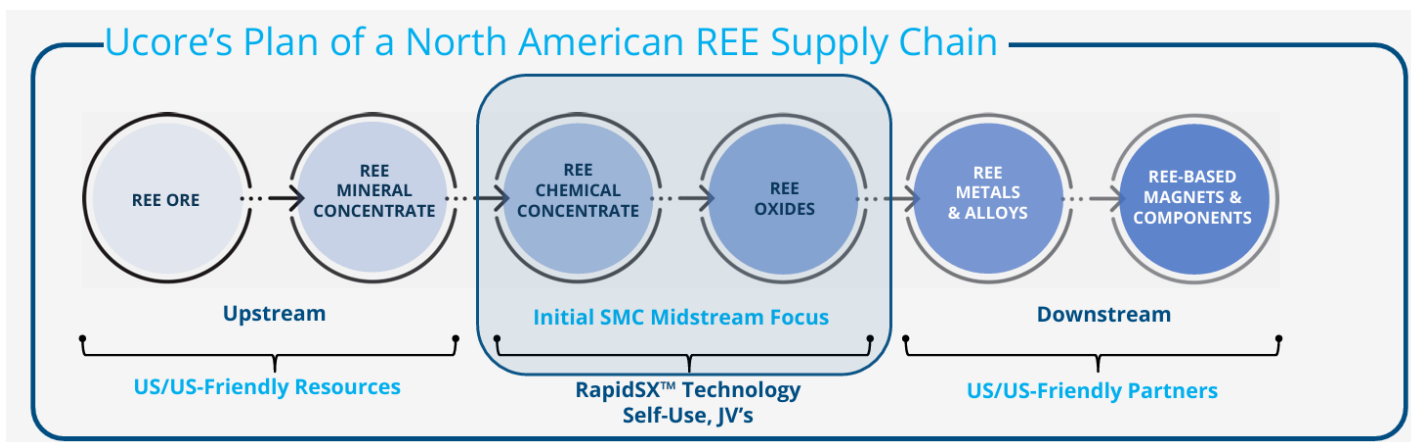
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Executive Summary

Ucore Rare Metals Inc. is focused on developing REE processing facilities in North America through its scalable Strategic Metals Complex (SMC) business model. Its first SMC in Alexandria, LA is expected to use its patent-pending, RapidSX™ technology, which is currently being de-risked at a demonstration plant in Kingston, ON. RapidSX™ has the potential to produce separated REOs from mixed rare earth oxide and carbonate feeds, from a variety of deposits 3-7x faster than conventional solvent extraction. An 80tpa commercial demonstration facility (CDF) in Kingston, Ontario is currently working on demonstrating processing capabilities for the US Department of Defense (DoD) and Natural Resources Canada (NRCAN). The company is also working towards its first SMC in an industrial park in Alexandria. Plans are to process 2,000 tpa of TREO in Phase 1, 5,000 tpa in Phase 2, and 7,500 tpa in Phase 3. Initial capex of US\$65M has been estimated for Phase 1 construction with an additional US\$30M budgeted to acquire feedstock for commissioning of the plant. Ucore is working on developing its REE processing business (Figure 1) at a time when REE production is heavily concentrated in China and geopolitical concerns are driving the development of REE supply chains in North America. The company also has 100% ownership of the Bokan Mountain REE project in Alaska, which hosts 5.2Mt in Inferred resources grading 0.653% TREO (0.259% HREO and 0.394% LREO).

We are initiating coverage on Ucore Rare Metals Inc. with a BUY (S) rating and no target price. We believe demonstration and commercialization of its RapidSX™ processing technology will be a primary driver for the stock.

Figure 1: Ucore's positioning in a North American REE supply chain



Source: Company Reports

Upcoming Catalysts

- 1) Completion of US DoD program (H1/25)
- 2) Completion of NRCAN LREE program (H2/25)
- 3) Submission of permit application for Louisiana SMC (H2/25)

While REEs have wide applications, their pre-eminent use is in the production of NdFeB magnets, used in electric motors, generators, military equipment and medical devices

Investment Thesis

REEs: a group of 17 elements with growing and critical applications. Given their very similar properties, REEs are typically found, mined and processed together (Figure 2). They are further classified into Light Rare Earth Elements (LREEs) and Heavy Rare Earth Elements (HREEs). **While these elements have a variety of applications (Figure 3), like stabilisers in catalytic compounds (La, Ce) and energy-efficient phosphors for computer and phone displays, as well as fluorescent lamps (Y, Tb), their most valuable application is in permanent magnets (Nd, Pr, Dy, Tb).** Nd and Pr can handle greater permanent magnetic saturation than ferrous magnetic materials, making them ideal for applications where lighter, smaller and better performing magnets are needed. NdFeB magnets (also called neo magnets) are critical components in traction motors for EVs, as well as generators in wind turbines. Dy and Tb are added to these magnets to enhance their performance. **The growth in magnet demand, with an estimated CAGR of 10.6% to 2040, according to the International Energy Agency, is expected to be the single biggest driver of demand for all REEs.**

Figure 2: REEs on the periodic table of elements

Group	1	2		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Period 1	H																		He
Period 2	Li	Be												B	C	N	O	F	Ne
Period 3	Na	Mg												Al	Si	P	S	Cl	Ar
Period 4	K	Ca		Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Period 5	Rb	Sr		Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Period 6	Cs	Ba	La-Yb	Lu	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Period 7	Fr	Ra	Ac-No	Lr	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn	Nh	Fl	Mc	Lv	Ts	Og
Period 6				La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb		
Period 7				Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No		

LREEs - lanthanum, cerium, praseodymium, neodymium, promethium, samarium
HREEs - europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium

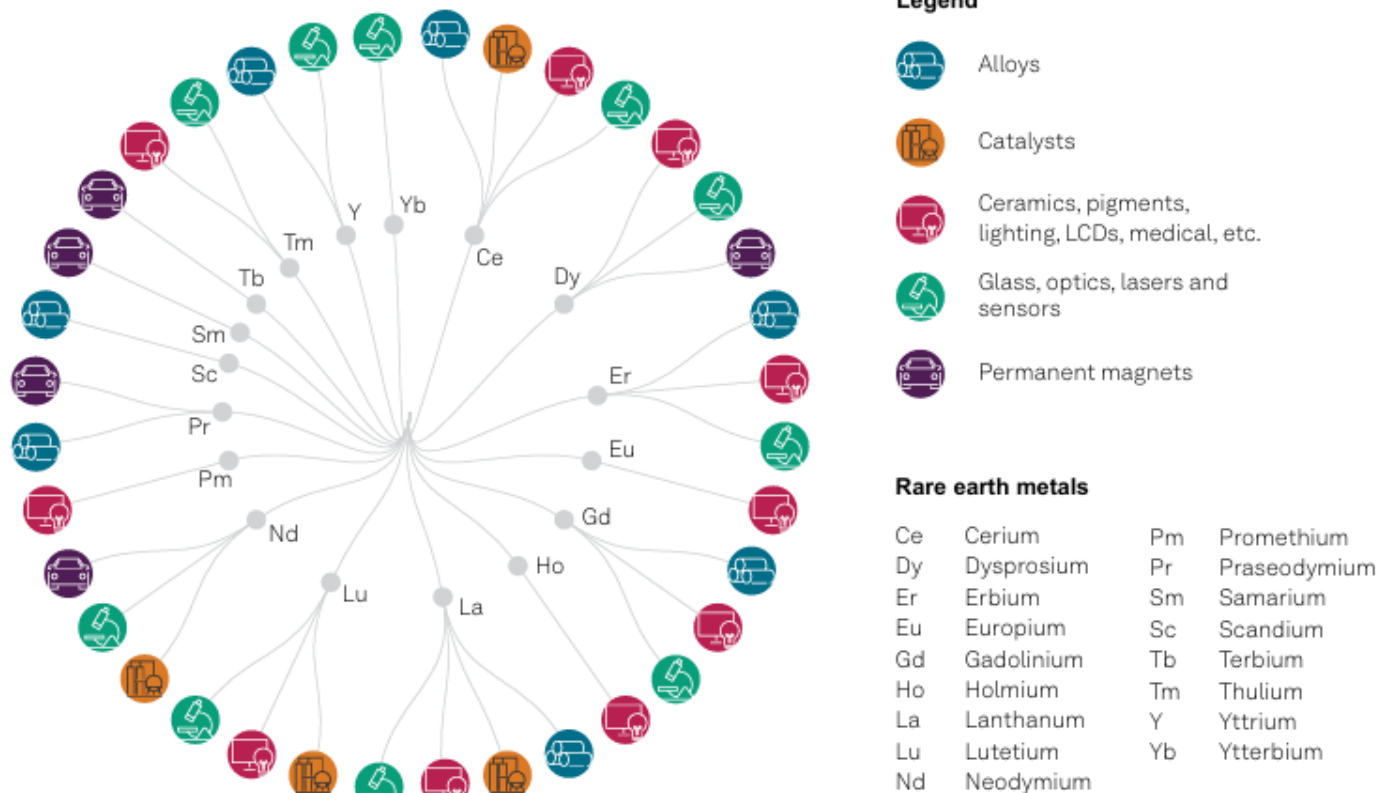
Source: RCS

New technology adoption expected to drive REE demand growth.

NdPr is the largest segment of the REE market. Its primary application is in neo permanent magnets, which are more magnetic than permanent ferromagnets. Neo magnets are used when there are size or weight limitations. For example, if an EV manufacturer wants to make smaller and lighter motors, neo magnets are a good option, but will come at a higher cost. EV demand is expected to increase significantly over the coming decades (Figure 4), impacting demand for REEs.

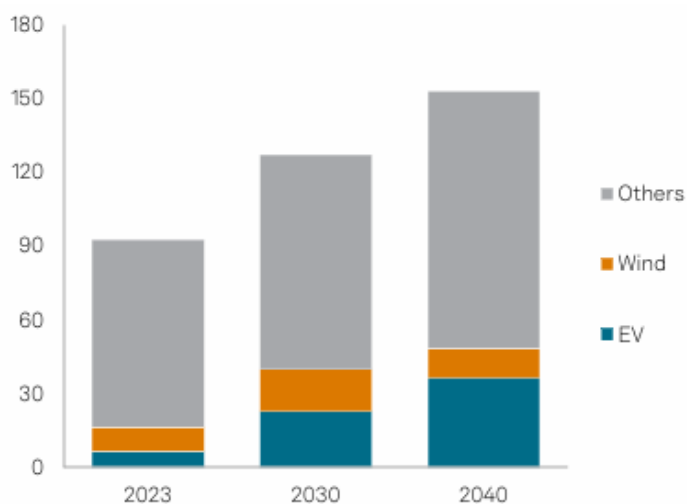
Figure 3: Typical applications of REEs

Examples of rare earth applications



Source: S&P Global Commodity Insights

Figure 4: REE demand by application

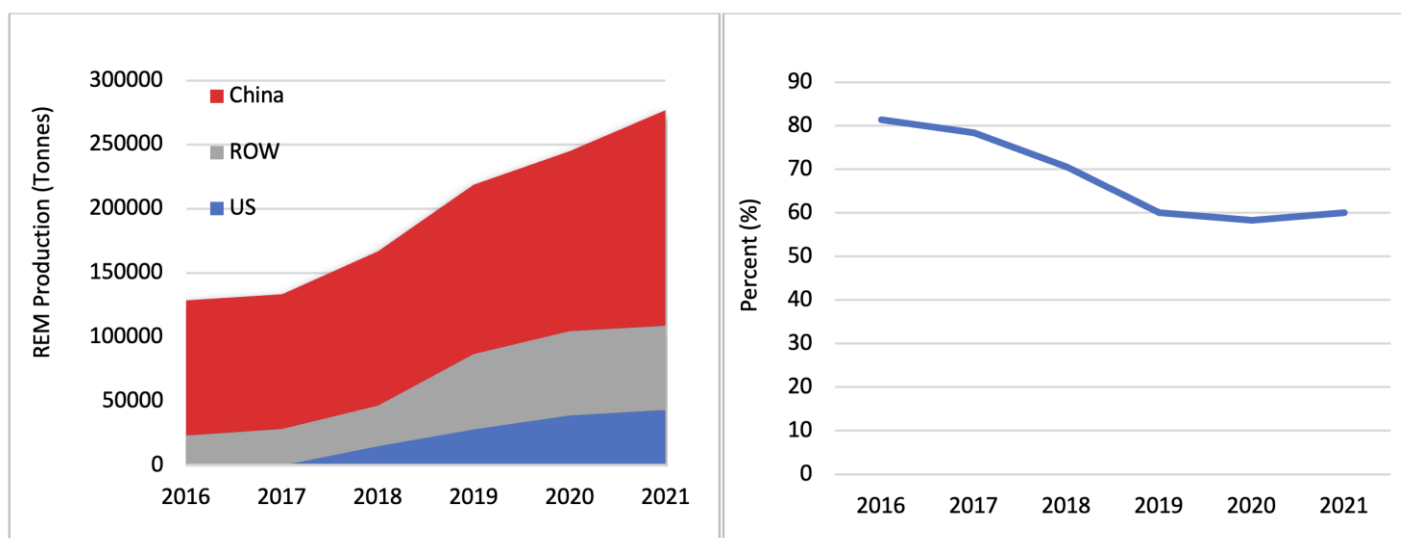


Source: S&P Global Commodity Insights

China dominates all stages of the REE supply chain

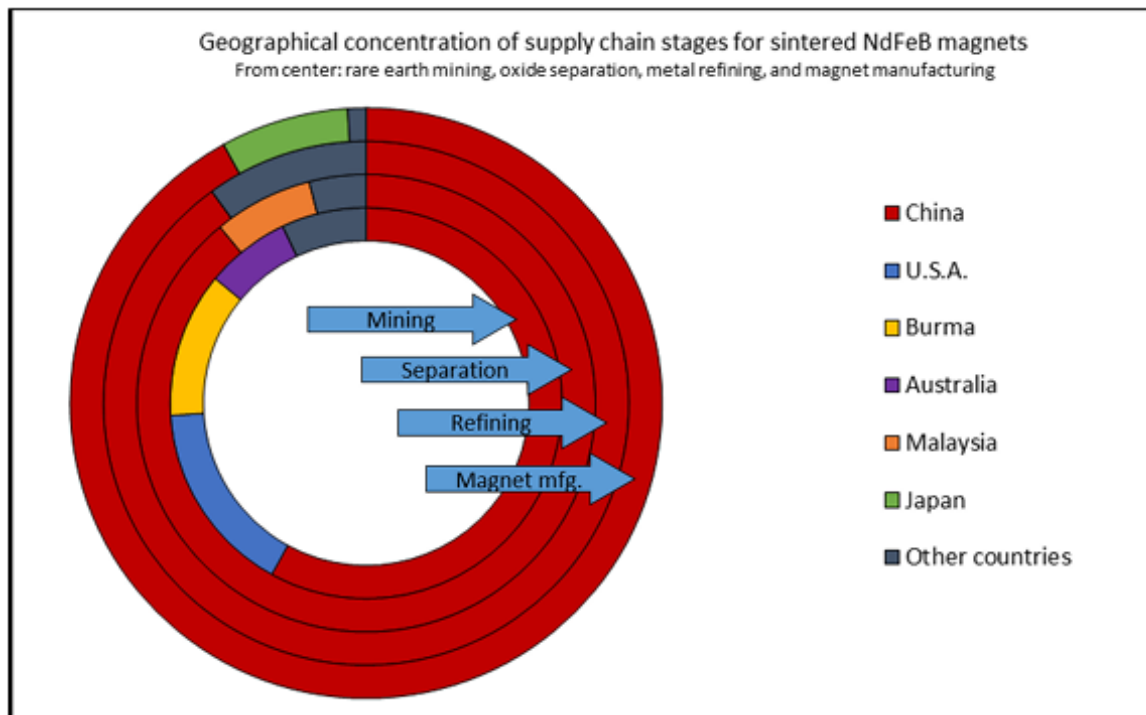
China dominates REE mining and processing (Figure 5 and 6). China is by far the largest producer of REE minerals, of more advanced processed products like separated REOs, and end-use products like NdFeB magnets. China does host the Bayan Obo mine in Inner Mongolia, which is one of the largest REE mines in the world. However, even in cases where initial mining or beneficiation is conducted in other countries, China dominates processing and manufacturing. China also has a system of quotas restricting mining and processing, thereby impacting price. This has historically been used to disincentivize new capacity from developing in other countries. The lack of processing capacity around the globe has made many countries, including in North America, heavily dependent on China, with recent geopolitical tensions causing disruption to supply chains in the US. **In Apr/25, China imposed controls on the export of seven REEs – scandium (Sc), yttrium (Y), terbium (Tb), dysprosium (Dy), gadolinium (Gd), lutetium (Lu) and samarium (Sm). We believe that this is effectively a targeted export ban. Nd and Pr, by far the REEs with the largest markets, may be subjected to similar strict controls in future escalations of the ongoing trade war between the USA and China.** This follows the announcement in Dec/24 of a complete ban of exports by China of gallium (Ga), germanium (Ge), and antimony (Sb) to the USA and tighter controls on the sales of graphite. These metals are thought to have dual uses, civilian and military. American consumers of these metals must either run down inventories or find other sources. **Even if global REE metal supply continues to grow to match global demand, we believe that the desire to decouple North American supply chains from China will catalyse the growth of the REE mining and processing business in North America.**

Figure 5: Global REE mineral production has been rising, but China's share of global mineral production has been declining modestly



Source: Michot Foss, Michelle and Jacob Koelsch (2022) *Of Chinese Behemoths: What China's Rare Earths Dominance Means for the US*, Research paper no. 12.19.22. Rice University's Baker Institute for Public Policy, Houston, Texas. <https://doi.org/10.25613/SZTC-WP59>

Figure 6: Geographical concentration of supply chain stages for NdFeB magnets



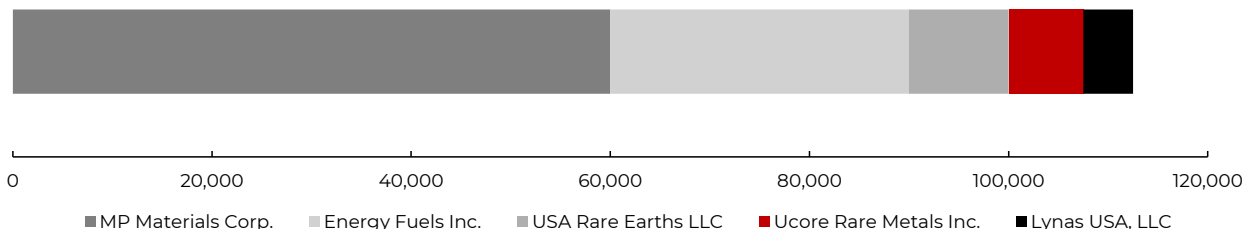
Source: US Department of Energy (2022) Rare Earth Permanent Magnets – Supply Chain Deep Dive Assessment

Only two companies in the US are producing mixed and separated REOs, MP Materials and Energy Fuels

North American processing capacity is nascent but ramping up.

According to the US Geological Survey, in 2023, the USA exported 40k REO equivalent tonnes, in the form of ore and concentrates, which constitutes ~90% of its domestic primary production. On the other hand, it imported +95% of its apparent total REE consumption (included as components in imported finished goods). Chinese domination of REE processing facilities means the country has a stronghold on all products that consume REEs. **North American capacity to commercially produce mixed and separated REOs is currently restricted to MP Materials (NYSE:MP, Not Rated) and Energy Fuels (TSX:EFR, BUY, C\$16.50 target, David A. Talbot), though capacity at both is still nascent and ramping up.** Other companies with plans to develop commercial REE processing facilities include USA Rare Earths (NASDAQ:USAR, Not Rated) and Lynas USA, LLC. Many of the plans are multi-staged and involve a focus on HREEs, which are harder to find outside China. Considering the maximum capacity for each of these companies based on announced plans, we estimate total combined REO production of ~112ktpa (Figure 7).

Figure 7: Estimated North American REO production from Ucore and its peers



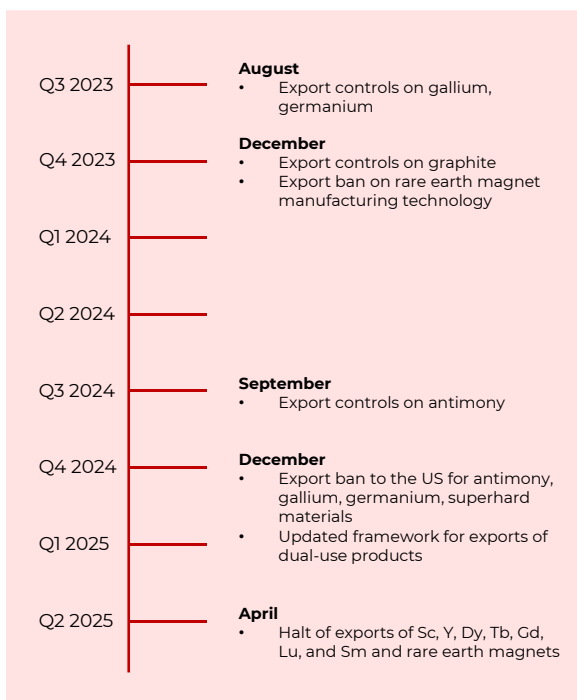
Source: Company Reports, RCS Analysis

The US government has enacted several policies to help build an integrated REE supply chain

The Trump administration is encouraging the construction of REE mines and processing plants in the USA. The administration has already enacted several Executive Orders that are favourable for USA-based mining and processing of various materials in general, and REEs in particular. In its first hours, the second Trump administration passed an Executive Order titled Unleashing American Energy, that explicitly mentions making the USA a leading producer and processor of REEs. It also directed various levels of government to ease the permitting process. To this end, the US Department of Interior is expediting environmental approvals for resource projects on federal land. On April 15, 2025, Mr. Trump signed an Executive Order directing the Secretary of Commerce to initiate a formal investigation into whether US reliance on imported processed critical minerals and their derivative products, is a threat to national security. In addition to policy initiatives, we can also expect financial support from the government to enact its industrial policies, like the US\$9.6M awarded to MP Materials Inc. (NYSE:MP, Not Rated), for developing domestic LREE processing facilities, during the first Trump administration. **We expect similar encouragement for the sector in the second term, especially as the trade war with China, and other countries is expected to continue.** On April 24, 2025, Interior Secretary Burgum also announced that the US Government is considering establishing a sovereign wealth fund, among other strategies, to strengthen the US' supply of critical minerals, such as REEs. This came after the federal government-owned, Export-Import Bank of the USA (US EXIM) issued an LoI for up to US\$190M in debt financing to Victory Metals (ASX:VTM, Not Rated), for the development of the North Stanmore HREE project in Western Australia. Loans extended by ECAs like US EXIM may entail clauses specifying where material is processed. In this case, it could lead to the processing of HREE concentrates at a plant based in the USA, such as Ucore's planned SMC. While the administration is supportive of REE production and processing, some of the other orders signed, such as pausing all federal leasing and permitting for wind farms, could have potential negative implications for REE demand in particular. Demand for REEs is also likely to face headwinds from a general drop in aggregate demand in the broader economy due to the inflationary effects of tariffs. **On balance, we expect the critical minerals and REE sector to maintain its momentum due to strong demand fundamentals, despite policy changes that take place in Washington.**

Demand for TREO is anticipated to grow at 6.1% pa till 2035. Demand for TREO in 2023 was 209kt, which is expected to grow at a CAGR of 6.1% pa through 2035 to 425kt, according to Adamas Intelligence. This includes demand for ~90kt of the magnet REEs (Nd, Pr, Dy, Tb). **Global demand for magnet REE oxides alone is expected to grow by 65.5% to 153kt by 2040, according to the International Energy Agency's state policies scenario.** We believe that a significant portion of this increased demand will be from end-users in North America, which in an ideal world could have been satisfied by the status quo in the supply chain, i.e. manufactured in China and exported to North America. However, considering China's quota system for restricting exports of REEs and a potential ban on its export to the USA altogether (Figure 8), production of REEs and REOs for manufacturing and use, are likely to shift to North America or allied nations. **Hence, the combined ~112 ktpa TREO production capacity being developed by the five companies in the USA (Figure 7) is likely to be essential for meeting future North American demand.**

Figure 8: A timeline of China's trade actions



Source: S&P Global Market Intelligence

RapidSX™ has been vetted by third-party independent experts. From Q3/21 to Q2/22, AG Hydrometallurgy Services Inc. conducted an independent evaluation of the RapidSX™. It concluded that:

- RapidSX™ can separate both HREEs and LREEs for producing high-quality REOs and uses the same chemistry as proven, conventional SX processes but with faster kinetics. Thus, chemistry risk at scale-up should be minimized.
- The process shows itself to likely be at least 3x as efficient as conventional SX, concluding that a plant can potentially have a 2/3rd smaller footprint than a conventional plant of the same

RapidSX™ has been tested on monazite, bastnäsite and ionic clays

capacity, with an associated capital cost (capex) reduction of 50% or better.

- Separation and purification characteristics of REEs by RapidSX™ are dependent on the REEs chemistry (same as conventional processes) and, given a smaller footprint for the same throughput, should have an expected operating cost (opex) of 20% less.
- RapidSX™ is a modular process, making it scalable with minimal risk. The process can be designed to process REEs in the range of 1,000 to 10,000-plus tpa.

Feedstock agnostic processing creates room to be flexible. To date the technology has been tested at its demonstration plant on three different feedstock sources: synthetic monazite, bastnäsite and ionic clays; all from US-friendly sources. Almost no modifications are required to the equipment to process material from different sources; the only downtime is due to the cleaning of the columns before a new feed is processed. Leveraging this flexibility, Ucore has signed memoranda of understanding (MoUs) with multiple companies for a variety of feeds from different geographies, significantly diversifying its sources and mitigating supply risk:

- **Apr/22 MoU thyssenkrupp Materials Trading GmbH (Private):** It contemplates a supply of 1,000 tons per annum of mixed RE carbonate for processing at the Louisiana SMC, with an agreement to work towards a 10-year binding supply contract.
- **Jan/24 MoU with Defense Metals Corp. (TSXV:DEFN, Not Rated):** to collaborate on creating a North American REE supply chain. A RE carbonate sample from Defense Metals' Wicheeda deposit in BC was shipped to the demonstration plant for testing.
- **Jul/24 MoU with Cyclic Materials Inc. (Private):** Ucore is currently working on qualifying recycled mixed rare earth oxides (rMREO) produced by Cyclic Materials, a private REE magnet recycling company. Ucore has a non-binding MoU for future supply ([read notable](#)). **As REE consumption rises, secondary REO supply from end-of-life devices should be a growing source of input for REO producers and being able to reprocess this could be a competitive edge for Ucore.** This relationship is especially promising - unlike primary REO concentrates, which contain varying mixes of all REEs, REO concentrates from recycled neo magnets should be just the high-value magnet REEs.
- **Aug/24 MoU with Meteoric Resources (ASX:MEI, Not Rated):** It outlines supply of 3,000 tonnes of mixed TREO from Meteoric's Caldeira REE ionic clay project in Minas Gerais, Brazil ([read notable](#)).
- **Sep/24 MoU with ABx Group (ASX:ABX, Not Rated):** Ucore intends to acquire a right of first refusal (ROFR) over 50% of the first five years of mixed rare earth carbonates (MRECs) production from ABx's REE project in Tasmania ([read notable](#)).

Government projects should increase confidence among investors. The company is working on two notable projects for the governments of Canada and the USA. Details on these programs are outlined on page 15. Additionally, it received a C\$500k grant from Ontario's Critical Minerals

Innovation Fund (CMIF) in Jan/25, towards the demonstrations of successfully separating REEs. **We believe these awards and grants should be viewed as stamps of approval by the Canadian federal and provincial, as well as the US federal governments.**

RapidSX™ could employ AI down the line. We had a chance to visit Ucore's demonstration plant in Kingston during the summer of 2024 (read our site report [here](#)). We observed that only three individuals were running the entire process: one lead that monitors all the information at a centralized monitoring station, and two sample takers that take a sample every four hours to ensure that the process is running correctly. Management is of the view that with the use of machine learning and AI, only a handful of individuals could be required to run the facility during the commercial production stage.

Building its first commercial-scale facility in Alexandria, Louisiana.

The flowsheet for the commercial plant will be based on learnings from the demonstration plant in Kingston. In Jan/24, the company announced that it had chosen the site for its first REE processing facility. The site chosen is the England Airpark, an industrial site with existing infrastructure to quickly meet the projected demand for REEs in North America. Ucore has received strong financial support from the State of Louisiana in the form of incentives like grants, tax incentives, payroll rebates, customized employment recruitment and training with a combined potential value of US\$15M. The England Airpark is designated as a foreign trade zone, and its location in Alexandria provides access to a technically skilled workforce and four navigable river systems: Red River, Mississippi, Gulf Inter-coastal Waterway and the Gulf of Mexico, via the Central Louisiana Regional Port 15km away. Given the site's history as a former Air Force base, it would also be eligible for an expedited permitting process.

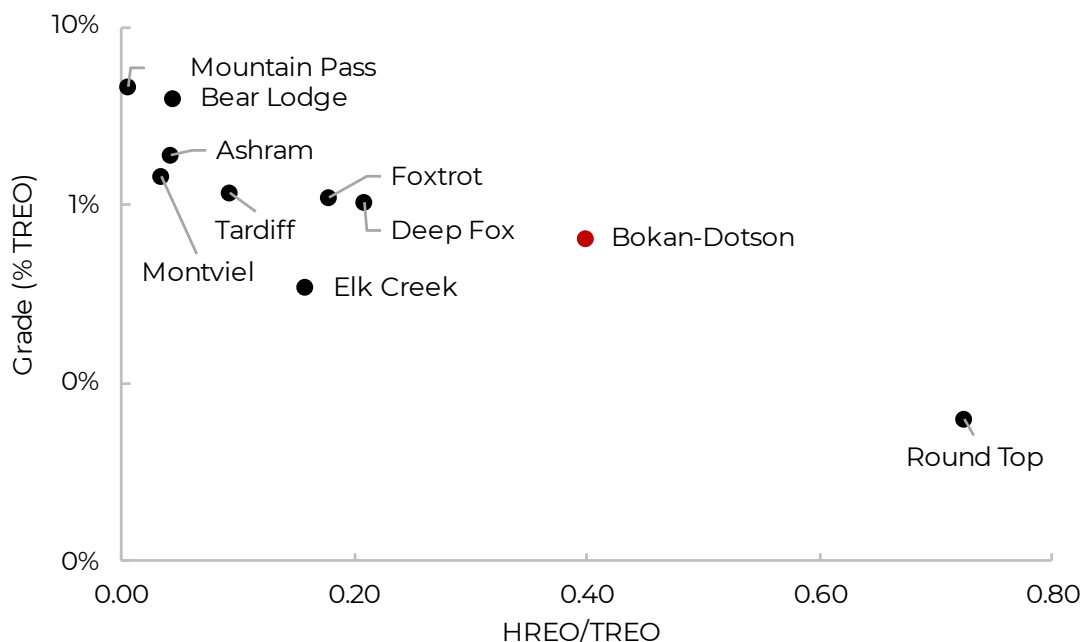
Three phases planned to eventually process 7,500 tpa REOs. Phase 1 would include the capacity to process a throughput of 2,000 tpa (ex-Ce and Y) with an estimated initial capex of US\$65M. Production is targeted for mid-2026. Phase 2 would involve scaling up the processing capacity to a throughput of 5,000 tpa (ex-Ce and Y), followed by a final expansion to 7,500 tpa (ex-Ce and Y) throughput during Phase 3. **We highlight that the RapidSX™ processing technology is scalable, with the Louisiana SMC planned as the first of many processing plants across North America.** Potential secondary locations could include Alaska (to process feed from the Bokan Mountain project) or Canada.

Bokan Mountain project provides long-term, vertical integration option. The 100%-owned Bokan Mountain project in Alaska hosts 5.3Mt of Inferred resources grading 0.653% TREO (0.394% LREO and 0.259% HREO). It is relatively enriched in HREEs (Figure 9), like other REE deposits associated with peralkaline igneous rocks. **The HREE-enrichment is noteworthy as globally, and especially among deposits outside of China, HREEs are relatively less abundant than LREEs.** As a result, HREEs are not only more valuable but also subject to more programs trying to incentivise HREE production in North America. A 2013 PEA outlined a 11-year, 1,500 tpd underground mining operation producing separated REO concentrates with a post-tax NPV_{10%} of US\$368M, payback period of 2.5 years and an IRR of 35%, assuming initial capital of US\$221M. In 2014, the Alaska State Legislature approved a

The Louisiana SMC is close to existing infrastructure facilities and would be eligible for an expedited permitting process

US\$150M bond package for the infrastructure and construction costs for the project, contingent upon among other things, a positive definitive feasibility study. The PEA was conducted before Ucore developed its RapidSX™ processing technology and evolved its SMC business model. Hence, the company plans to evaluate the incorporation of RapidSX™ processing in future technical studies and likely after completion of the Louisiana SMC.

Figure 9: Bokan-Dotson is HREE-enriched relative to its peers



Source: Company Reports, RCS Analysis

Management's prior experience should help move the company towards commercial production in the near term

Led by successful technology entrepreneurs. The CEO, Pat Ryan, founded Neocon International in 1993 in Halifax, and successfully grew it into a leading, automotive OEM design and manufacturing firm. We highlight that Halifax is not near traditional North American hubs of automobile manufacturing. He has collaborated with giants like Honda (TSE:7267, Not Rated) and General Motors (NYSE:GM, Not Rated), and is acknowledged as an expert on supply chains, making him well-suited to lead a company that is working on plugging the processing gap in the North American REE supply chain. The COO, Michael Schrider, has over 30 years of experience in manufacturing and engineering project management. He has founded three companies providing engineering, technical and managerial services. Finally, VP Business Development, Geoff Atkins, is one of the few executives outside China with experience establishing rare earths operations: Mt. Weld (Australia) with Lynas Rare Earths (ASX:LYC, Not Rated) and Nechalacho (Canada) with Vital Metals Ltd. (ASX:VML, Not Rated). His experience should help with securing feedstock and offtake agreements for Ucore.

Ucore's technology is scalable, flexible and could produce a wide range of separated REOs

Valuation & Relative Valuation

We are initiating coverage on Ucore Rare Metals Inc. with a BUY (S) rating and no target price. Given the commercially unproven nature of the company's critical RapidSX™ technology, we ascribe a speculative rating to account for the increased risk of its technology and assets, and do not yet assign a target price.

We justify our BUY (S) rating based on the growth potential for domestic REE processing in general and for Ucore's technology in particular. We have profiled four companies (Figure 10) advancing REE processing facilities in the USA and strongly believe that Ucore has the potential to stand out even in this increasingly competitive field. **We expect steady progress towards the commercialization of the RapidSX™ technology and construction of the Louisiana SMC to drive the stock price in the coming years.**

MP Materials Corp. (NYSE:MP, Not Rated): The company is currently the largest REE miner and contained REO producer in North America. It currently mines bastnäsite and produces a mixed REE carbonate concentrate. However, until the placement of tariffs on trade between China and the USA, even the largest REE concentrate producer in North America sold its mixed REE concentrate product to China for refining. It is now accelerating its downstream capabilities. In 2023, it completed Stage II of its expansion plan to process its REE concentrate into individual REOs. In 2024, the company produced 1,300 tonnes of NdPr oxide, in addition to Ce, La and other separated products. In Jan/25, it announced the commencement of commercial production of NdPr metal and trial production of automotive-grade sintered NdFeB (neo) magnets at its Independence facility in Fort Worth, Texas. We believe that it will rely significantly on a tolling partner in Southeast Asia to process most of its NdPr oxide into NdPr metal, while the US facility is ramping up. MP is working on a US\$35M US DoD grant to build a HREE processing and separation facility at Mountain Pass, though we note that the Mountain Pass deposit is significantly LREE-enriched (Figure 9).

Energy Fuels Inc. (TSX:EFR, BUY, C\$16.50 target, David A. Talbot): The company operates the White Mesa mill in Utah, which was originally set up to produce uranium from EFR's uranium mines. The company also developed the ability to process monazite to produce uranium, and later REEs. In Sep/24, Energy Fuels commissioned its Phase 1 REE separation circuit to produce separated NdPr and heavy Sm plus RE carbonate. Phase 1 involved modifying its existing SX mill to process 8-10 ktpa monazite and produce ~4-6ktpa TREO, containing ~850-1,000 tpa of recoverable separated NdPr. Phase 2 expansion aims to expand capacity to process 30-60 ktpa monazite and produce 15-30 ktpa TREO, containing ~3-6ktpa NdPr.

USA Rare Earth, LLC (NASDAQ:USAR, Not Rated): The company is setting up a vertically integrated mining, processing and magnet manufacturing business. Phase 1 of its permanent magnet production facility in Stillwater, Oklahoma is expected to be commissioned in early 2026, with a capacity to produce up to 1,200 tpa using third party feed. By the end of Phase 3, the aim is to have ~4,800 tpa NdFeB magnet production capacity using feed from its 80%-owned Round Top Mountain deposit in West Texas, where a 20-year open pit mining and

acid heap leach operation is planned to produce an REE-rich pregnant liquor. The remaining 20% is owned by Texas Mineral Resources Corp. (OTCQB:TMRC, Not Rated). While the deposit is very HREE-enriched, it is low-grade and small.

Lynas USA, LLC: This is the American subsidiary of Lynas Rare Earth Ltd. (ASX:LYC, Not Rated). In Aug/23, the US DoD awarded Lynas a US\$258M multi-year contract to build an industrial-scale HREE separation facility. According to the SAFE Center for Critical Minerals Strategy, this award alone accounts for ~20% of all publicly announced awards for critical minerals production by the US DoD under its flagship DPA Title III and Industrial Base Analysis and Sustainment (IBAS) programs up to Jan/25. Lynas USA's Texas rare earths processing facility aims to be the first producer of heavy rare earth materials outside China with plans to take a mixed rare earth blend and separate it into individual elements. Lynas is targeting operationalizing its facility between July 2025 and June 2026 (FY 2026).

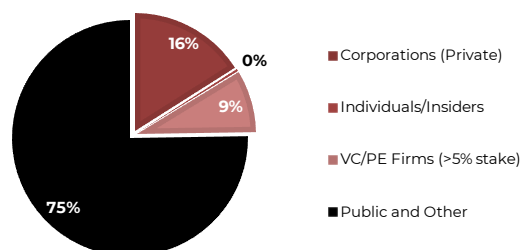
Figure 10: Comparable companies for Ucore Rare Metals Inc.

Company	Ticker	Price (C\$/sh)	YTD Perf.	Shares (M)	Mkt. Cap C\$M	Cash C\$M	Debt C\$M	EV C\$M
Ucore Rare Metals Inc.	TSXV:UCU	\$1.96	161%	72.4	\$142.0	\$3.8	\$12.1	\$150.3
Energy Fuels Inc.	TSX:EFR	\$6.27	-15%	210.2	\$1,318.2	\$171.9	\$0.0	\$1,146.3
MP Materials Corp.	NYSE:MP	\$33.69	56%	167.8	\$5,651.4	\$1,224.3	\$1,322.2	\$5,749.3
Lynas Rare Earths Limited	ASX:LYC	\$7.33	29%	940.0	\$6,889.2	\$275.7	\$175.4	\$6,788.9
American Rare Earths Limited	ASX:ARR	\$0.24	4%	507.4	\$123.4	\$10.5	\$0.2	\$113.1
Avalon Advanced Materials Inc.	TSX:AVL	\$0.03	-25%	615.0	\$18.4	\$1.6	\$9.7	\$26.5
Dundee Sustainable Technologies Inc.	CNSX:DST	\$0.18	133%	67.6	\$11.8	\$0.7	\$23.8	\$34.9
EnviroMetal Technologies Inc.	CNSX:ETI	\$0.01	0%	113.6	\$1.1	\$0.0	\$0.1	\$1.2
USA Rare Earth, Inc.	NASDAQ:USAR	\$13.37	-16%	82.0	\$1,095.7	\$24.1	\$1.2	\$1,072.8
Median								\$592.9
Average								\$1,866.6

Source: Company Reports

Ucore has 72M shares outstanding with 6M options and 21M warrants, resulting in 101M fully diluted shares (Figure 11).

Figure 11: Ucore Rare Metals Inc. capital structure and ownership



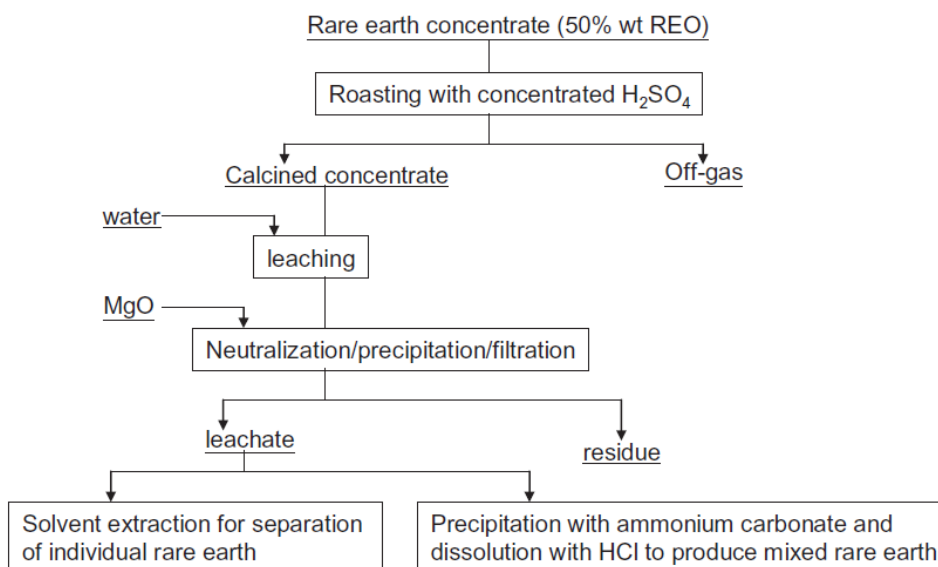
Summary	Nos. Outstanding	Nos. ITM
Shares Outstanding	72.44	0.00
Options	6.14	4.99
Warrants	21.02	21.02
Unvested RSUs, DSUs	0.96	0.00
Total	100.55	26.00

Source: Company Reports, S&P CapIQ

RapidSX™ Technology

The company's patent-pending technology promises faster extraction and separation of REEs than conventional solvent extraction (SX).

Figure 12: Schematic of REE separation using SX



Source: Feng Xie, Ting An Zhang, David Dreisinger, Fiona Doyle, A critical review on solvent extraction of rare earths from aqueous solutions, Minerals Engineering, Volume 56, 2014, Pages 10-28, ISSN 0892-6875.

Conventional Solvent Extraction

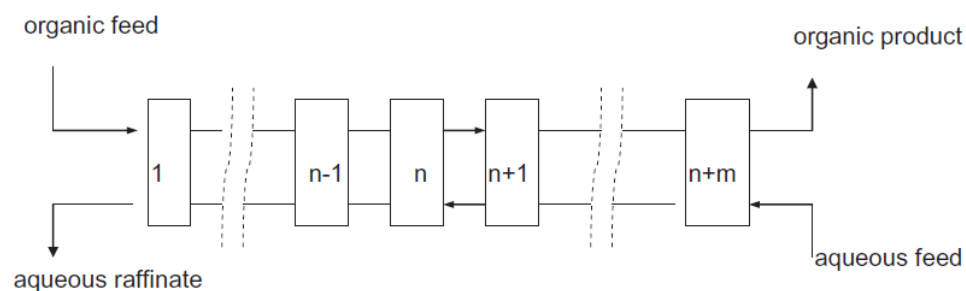
Solvent extraction, also called liquid-liquid separation, is a widely used technique to separate REEs from REE-rich leach solutions (Figure 12). The most common method involves using an organic layer that selectively binds REE cations to itself from the REE-rich aqueous layer. The organic layer is separated from the aqueous layer, for the metal ions to be stripped from it, typically by an acidic solution.

Usually, trivalent rare earths are separated into two or more groups, followed by subsequent separation of individual rare earths from each other. Rare earth solvent extraction processes are generally classified as **primary separation** (separation of REEs from other elements) and **secondary separation** (separating single or mixed, typically 2 or 3, REE products from the mixed rare earth stream). Secondary separation is significantly more challenging of the two, as REEs have very similar chemical properties. Hence, the process of mixing the organic and aqueous layers needs to be repeated hundreds of times to produce high purity solutions. The classic configuration for achieving this is the countercurrent flow scheme (Figure 13).

Conventional SX technologies suffer from a variety of disadvantages. It can be inefficient, labour-intensive and time-consuming.

While conventional SX for the separation of REEs from concentrate are well-established, it is inefficient, labour-intensive and time-consuming

Figure 13: Simplified schematic of countercurrent SX circuit



Source: Feng Xie, Ting An Zhang, David Dreisinger, Fiona Doyle, A critical review on solvent extraction of rare earths from aqueous solutions, Minerals Engineering, Volume 56, 2014, Pages 10-28, ISSN 0892-6875.

RapidSX™ Column Solvent Extraction Technology

Ucore's patent-pending technology for the separation of REEs from a variety of mixed REE feedstock aims to process REEs at least 3x faster than a conventional SX plant. It employs the same chemical reactions as conventional SX, however, the 52-stage RapidSX™ process blends the aqueous feed and the organic solvent in a static contactor column and phase separator, making the use of a powered mixing tank redundant. This reduces the energy and space required for handling the same throughput compared to conventional SX.

The design parameters of this technology have not been publicly revealed. Confidence in the design is boosted by

1. Evaluation of design, feed and product quality by 3rd parties.
2. Review by funding agencies

Independent 3rd party technical evaluation. From Q3/21 to Q2/22, AG Hydrometallurgy Services Inc. conducted an independent evaluation of the RapidSX™ technology. It concluded that:

1. RapidSX™ can separate both HREEs and LREEs thereby producing high-quality REOs and uses the same chemistry as conventional SX processes but with faster kinetics. Thus, chemistry risk at scale-up should be minimized.
2. The RapidSX™ process shows itself to likely be at least 3x as efficient as conventional SX, concluding a production plant can potentially have a two-thirds smaller footprint than a conventional plant of the same capacity, and an associated capital cost (capex) reduction of 50 per cent or more.
3. Separation and purification characteristics of REEs by RapidSX™ are dependent on the REEs chemistry (which also applies to conventional processes) but given a smaller footprint for the same throughput, expected operating costs (opex) should be at least 20 per cent lower than conventional processes.
4. RapidSX™ is a modular process, making it scalable with minimal risk. The process can be designed to process REEs in the range of 1,000 to 10,000-plus tonnes per annum.

Independent 3rd party evaluation and review by funding agencies helps to boost confidence in the RapidSX™ technology

Ucore is working on completing its US\$4M project with the US DoD by H1/25, and its C\$4.3M project with NRCan by H1/26

US\$4M award from the US Department of Defense. In Jun/24, the US DoD granted a US\$4M award to demonstrate REE separation capability at its lab in Kingston. The objectives of the program were to present to the US DoD:

1. The capability of commercially sourcing a sustainable domestic (in the USA or Canada) feedstock source and process/convert various of these sources to salable individual REE products
2. a new innovative separation process that increases the ability to create domestic REE processing plants

The US DoD program is especially focused on the ultimate individual separation of the permanent magnet REEs Pr, Nd, Tb, and Dy plus yttrium (Y), from US-friendly heavy and mixed REO sources. Ucore was required to demonstrate the following:

1. REE separation processing capability at a rate more efficient than conventional SX.
2. separation technology applicability to both light and heavy REEs with the same equipment;
3. a continuous process facility capable of processing tonnes of feedstock; and
4. an increase in the Company's RapidSX™ technology readiness level ("TRL")

Payment for the US\$4M award is made in tranches based on the achievement of ten milestones, with the completion of each milestone representing a step toward unlocking the primary permanent magnet REEs – Nd, Pr, Tb, Dy and Y. As of April 25, 2025, Ucore had completed two milestones and received US\$2.3M. The second milestone involved the separation of the Ho-Lu from La-Dy on a scale of hundreds of liters of separated raffinate and strip liquor products of over 99% purity.

C\$4.28M Non-Repayable Government of Canada Contribution Agreement. In Nov/23, the company executed a Non-Repayable Contribution Agreement with the Government of Canada (through Natural Resources Canada's Critical Minerals Research, Development and Demonstration program). The objective of the agreement is to demonstrate RapidSX™ capabilities, specifically for separating LREEs by producing nearly continuous, high-purity samples of Pr, Nd and a NdPr compound.

The company expects to be reimbursed for ~C\$4.3M of eligible expenses out of a total project budget of C\$8.3M. Ucore has incurred C\$1.1M of reimbursable eligible expenses as of September 30, 2024.

While the original deadline for the project was March 31, 2025, negotiations have extended the eligible period by a year to March 31, 2026. Ucore's plan is to continue executing on its US DoD project through H1/25 and then transition to the completion of the LREE project with the Government of Canada. The work performed on separating NdPr for the US DoD program should significantly help with the LREE project as well.

C\$500k received from Ontario's Critical Minerals Innovation Fund (CMIF). In Jan/25 Ucore received C\$500k from the Ontario government to advance the demonstration plant in Kingston. Details were not provided on whether there were any milestone associated with the grant.

Processing is feedstock agnostic. To date the RapidSX™ technology has been tested on three different feedstock sources: synthetic monazite, bastnäsite and ionic clays; all from US-friendly sources. Almost no modifications are required to the equipment in order to process material from different sources; the only downtime is due to the cleaning of the columns before a new feed is processed.

Modular and scalable in nature. The RapidSX™ units currently operating in Kingston (Figure 14) are easily replicable on a commercial scale. The current diameter of the columns is 4 inches, but this will need to be expanded to 12 inches during commercial production. Moreover, the units have been constructed using material that is easily available at hardware and construction stores and does not require any specialized material. The modular nature of the RapidSX™ column technology allows multiple units to be added to scale production at a commercial plant without having the need to pause ongoing production.

Figure 14: The RapidSX™ commercial and demonstration facility in Kingston, ON



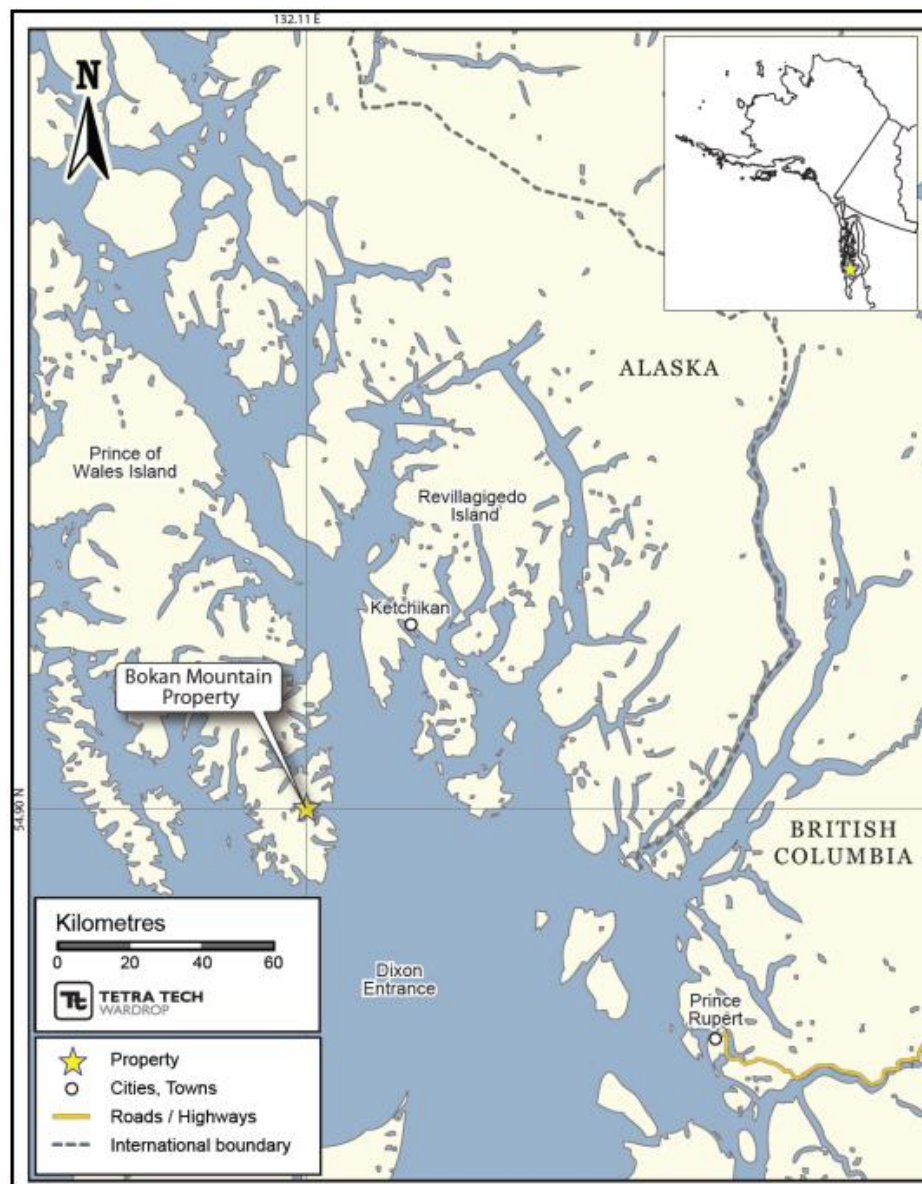
Source: Company Reports (PR November 23, 2023)

Process could employ AI down the line. At the demo plant only three individuals were running the entire process: one lead that monitors all the information at a centralized monitoring station and two sample takers that take a sample every four hours to ensure that the process is running correctly. Management is of the view that with the use of machine learning and AI, only a handful of individuals could be required to run the facility during the commercial production stage.

The Bokan Mountain project

The property is located ~60km southwest of Ketchikan, Alaska (Figure 15). The nearest road and railhead are located in Prince Rupert, 133 km to the southeast.

Figure 15: Location of the Bokan Mountain project in Alaska



Source: Company Reports

Geology & Mineralization

The deposit is located in the Alexander Terrane of the Canadian-Alaskan Cordillera. The U-Th-REE-Nb-Ta mineralization forming the deposit occurs as monazite, thalenite, bastnäsite, xenotime, euxenite and columbite/tantalite in irregularly structurally-controlled pipes, shear zone-related pods/lenses, or pegmatitic or felsic dikes within a circular Jurassic A-type peralkaline intrusive complex known as the Bokan

Mountain granite. Like other REE deposits related to peralkaline rocks, it is relatively enriched in HREE.

Mineral Resource Estimate

A 2011 MRE outlined Inferred resources of 5.3Mt grading 0.653%TREO (0.394% LREO and 0.259% HREO; Figure 16).

Figure 16: Bokan-Dotson project Inferred resources

Tonnes	LREE ppm	HREE ppm	TREE ppm	La ppm	Ce ppm	Pr ppm	Nd ppm	Sm ppm	Eu ppm	Gd ppm	Tb ppm	Dy ppm	Ho ppm	Er ppm	Tm ppm	Yb ppm	Lu ppm	Y ppm
5,228,200	3,369	2,114	5,482	552	1,621	195	793	208	21	808	37	232	45	124	17	93	11	1,326

Tonnes	LREO %	HREO %	TREO %	La ₂ O ₃ %	Ce ₂ O ₃ %	Pr ₂ O ₃ %	Nd ₂ O ₃ %	Sm ₂ O ₃ %	Eu ₂ O ₃ %	Gd ₂ O ₃ %	Tb ₂ O ₃ %	Dy ₂ O ₃ %	Ho ₂ O ₃ %	Er ₂ O ₃ %	Tm ₂ O ₃ %	Yb ₂ O ₃ %	Lu ₂ O ₃ %	Y ₂ O ₃ %
5,228,200	0.394	0.259	0.653	0.653	0.19	0.023	0.092	0.024	0.002	0.024	0.004	0.027	0.005	0.014	0.002	0.011	0.001	0.168

Tonnes	Nb ppm	Zr ppm	Th ppm	U ppm
5,228,200	381	1,837	81	66

Source: Company Reports

Mining Methods & Processing

A 2013 PEA outlined an 11-year 1,500 tpd underground mining operation producing 24,327 tonnes of TREO. The mined ore was planned to be processed using X-ray sorting, magnetic separation and acid leaching to produce an upgraded mixed REO concentrate. The PEA had also outlined further processing to produce individual separated REOs, however, with the new SMC business model that may be redundant.

Future plans

It is anticipated that the next milestone for the Bokan Mountain project is to refresh the 2013 PEA, against the future expected backdrop of a robust and independent North American REE supply chain. Focus for Ucore remains on derisking its patent-pending, RapidSX™ processing technology via the demonstration plant in Kingston. The company may come back to developing the Bokan Mountain at a future date.

Risks

Technology development and commercialization is an inherently risky investment given the large initial expenses that are required in advance of any potential revenue. Our view is based on publicly available information and conversations with management. We note that our estimates and view are not without political, social, technical, geological, or financing risks typical for pre-revenue junior mining technology and exploration companies. Ucore Rare Metals Inc., four risks are of note.

1. **Geopolitical/jurisdictional risks** – Some of these risks may be out of the control of the company, including royalty and taxation levels, land agreement liabilities, regulatory, environmental and permit requirements and timing, global trade wars and political instability. With China dominating the REE supply chain, changes in Chinese policies could negatively impact REE prices. For example, a global oversupply of processed REE products could disincentivize investment in domestic North American production capabilities. While Ucore has received significant government support until now, there is a risk that it may not continue.
2. **Technical risks** – Ucore's patent-pending RapidSX™ process is the foundation of its competitive position in the market. This position may be compromised by technological development by competitors. Additionally, demand for REEs is based on growth of existing and novel uses for REE products. The unsuccessful commercialization of new REE-based technologies or substitution for REEs by other materials could also negatively impact Ucore's businesses. For example, EV or plug-in hybrid vehicle demand may end up being lower than current expectations and its use of REEs may be impacted by substitution.
3. **Corporate risks** – These may include project execution by management, investor relations effectiveness, or market sentiment. Management pedigree and performance are paramount, and market sentiment may also be an issue.
4. **Financial risks** – These may occur at the project or corporate level, including variation in valuation parameters/metrics, commodity price or foreign exchange fluctuations, access to credit including debt, equity financing or potential for shareholder dilution.

As new information becomes available, we may refine our numbers and update our risks.

Appendix A: Management & Directors

Pat Ryan, P.Eng. – Chairman, CEO & Director

Mr. Ryan founded Neocon International in 1993, a leading automotive OEM design and manufacturing firm. He spearheaded its growth, focusing on innovations like light-weighting for fuel efficiency. With over 25 years in the industry, he's collaborated with giants like Honda and General Motors, earning accolades including Toyota's Platinum Quality Alliance Award in 2016. His expertise in global supply chains positions him at the forefront of vehicle electrification. Joining Ucore in 2014, he delved into critical metals essential for modern technologies. A frequent speaker and mentor, he holds an Engineering degree from Dalhousie University and has received the APENS Award for ethical service.

Peter Manuel – VP, CFO, Corporate Secretary

Peter Manuel has been Vice President and Chief Financial Officer of Ucore for 14 years. Prior to joining the Company, he practiced as a Chartered Accountant for more than 17 years providing consulting services to companies in a range of sectors, with a focus on the financial services and resource sectors. He spent 10 years in England and The Republic of Ireland providing assurance, strategic planning, corporate finance and other consulting services to a portfolio of both public and private entities including licensed banks, proprietary trading operations, and international corporate treasuries. Mr. Manuel holds a Bachelor of Commerce Degree from Dalhousie University.

Michael Schrider, MEng, P.E. – VP, COO

Since 1989, Mr. Schrider has excelled in manufacturing and engineering complex projects. A multidisciplinary engineer and business leader, he has spearheaded Ucore's projects since 2016. He founded and led engineering firms SAI and ABD for over 17 years. Previously, he worked in North American shipyards and a lubricant facility. He holds a Bachelor's degree from the University of New Orleans and is a registered engineer in Louisiana. Additionally, Mike has a Master's in Engineering from The University of Arizona.

Geoff Atkins – VP of Business Development

Mr. Atkins, with 30 years in mining, including 15 in the critical mineral sector, is Ucore's new Vice President of Business Development. He's been pivotal in establishing two rare earth operations: Mt. Weld with Lynas and Nechalacho with Vital Metals. At Lynas, he oversaw the Mt. Weld project and strategic planning. Leveraging his expertise in project delivery and strategy, he founded Cheetah Resources, later acquired by Vital Metals. He'll strategize for Ucore, ensuring diverse supply sources with minimized risks. Notably, he brought the Nechalacho project to operation in 2 years, a significant feat compared to the usual 10-year timeline. His accomplishments make him ideal to spearhead Ucore's feedstock acquisition.

Jaan Hurditch, CEng – Engineering Director

Mr. Hurditch, now Engineering Director at Ucore, previously worked with its subsidiary IMC for over two years, leading the RapidSX™ platform's development. This platform is currently being tested in Ontario and will be deployed in Louisiana from 2023-2024. Holding a Bachelor's degree from Queensland University in Australia, he boasts 18 years of experience

across continents. Hurditch excels in both management and technical innovation, skilled in team building, 3D design, and rapid prototyping technologies.

Mark MacDonald – VP of Investor Relations

Mr. MacDonald has over 25 years experience implementing award winning business development and marketing programs at a regional and national level. As Vice President of Sales, Mr. MacDonald was responsible for Mediapro Communication's growth as AT&T Canada's leading Canadian Business to Business sales partner. Mr. MacDonald subsequently took over all responsibilities of the Atlantic Regional Vice President of AT&T Canada Corp. As VP of Operations for Premier Executive Suites Mr. MacDonald consolidated four business units into one regional operation that was awarded Atlantic Canada's, "Best Places to Work" in 2009/10/11. He holds a Bachelor of Commerce degree from Dalhousie University.

Dr. Ahmad Hussein – Advisory Board Member and Government Liaison

Ahmad Hussein is a trailblazing scientist and entrepreneur in renewable energy. He excels in commercial scale-ups, strategic alliances, and IPOs, leveraging a global network to fast-track projects. He founded Nile Fiber Atlantic Canada, producing innovative renewable feedstock. Quickly, he partnered with six top universities, leading to a major contract with the European Union. Before this, Ahmad contributed to the H1N1 vaccine with IMV and facilitated its listing on the Toronto Stock Exchange. He sits on advisory boards for various companies and charities, emphasizing community growth. In 2020, he was celebrated as a top immigrant in Atlantic Canada, underscoring his commitment to environmental sustainability.

Geoff Clarke, MBA, LL.B., LL.M. - Director

Mr. Clarke is a Partner in the Toronto office of Miller Thomson LLP, a full-service national law firm with approximately 550 lawyers. Mr. Clarke is the Head of the Firm's Mining Department. Mr. Clarke has over 20 years of experience in investment banking, financial advisory services, corporate and securities law. His law practice focuses on advising public companies, institutional investors and investment banks in regard to securities offerings, mergers and acquisitions, corporate governance, shareholder activism, continuous disclosure, stock exchange matters and securities regulatory compliance matters. His M&A experience includes advising special committees in connection with take-overs, reorganizations, and searching for and prioritizing strategic alternatives. Mr. Clarke has extensive experience with clients in the mining sector. Mr. Clarke was formerly a partner at a large international business law firm that was a six-times recipient of a global "Mining Law Firm of the Year" award. Geoff is also the past-President of a Canadian investment dealer that serviced international and domestic institutional investors as well as many publicly listed companies. His role at the dealer included providing financial and strategic advice to mining industry companies regarding off-take agreements, joint-ventures, strategic partnerships and raising capital. Geoff also has experience serving on advisory committees for securities regulators in Canada such as IIROC and the Ontario Securities Commission. Geoff also taught Business Law at York University as an Adjunct Professor and he currently teaches Corporate Finance at the University of Windsor Law School, which is a course that he taught every

year since Sept. 2007. Geoff is recognized by the Canadian Legal Lexpert Directory for his expertise in Corporate Finance & Securities (2018) and by Best Lawyers in Canada for Mining Law (2021).

Jarda Dostal, Ph.D., P.Geo. – Director

Dr. Dostal is Professor Emeritus of Geology at Saint Mary's University in Halifax. He obtained a Ph.D. in Geology from McMaster University (Hamilton, Ontario). He has over 40 years of experience in geology, ore deposit studies, and geochemistry. He has published more than 300 scientific papers and is a widely acknowledged expert on rare metal mineralization in granitoids and volcanic rocks. At Saint Mary's University, he was on the Board of Governors and the executive committee of the Senate and established a regional geochemical center. He was the Canadian project director of the CIDA project in Mongolia, the Canadian project director for the NAFTA project, North American Mobility in Higher Education (Geology), Chair of the Earth Science committee of Science Atlantic, a member of the McMaster University Nuclear Reactor Management Board and Chair of the Volcanology and Igneous Petrology Division of Geological Association of Canada. He has also been Honorary Professor of the Mongolian University of Science and Technology in Ulaanbaatar, Visiting Professor at the China University of Geosciences in Wuhan, Adjunct Professor of Department of Earth Sciences, Dalhousie University, Adjunct Professor of Department of Geological Sciences, Ohio University, Athens, Ohio, USA and Visiting Scholar of Department of Earth Sciences, National Taiwan Normal University, Taipei, Taiwan. He also had faculty appointments at Universite Aix-Marseille 3, Universite de Montpellier 2, and Universita di Modena. His research has been recognized by scientific awards including the Distinguished Scientist Award of the Atlantic Geoscience Society (Gesner Medal), the Career Achievement Award of the Volcanology and Igneous Petrology Division of the Geological Association of Canada and the Hawley Medal, Mineralogical Association of Canada.

Steven Meister - Director

Mr. Meister has over 30 years of management and business development experience across Canada. Since 1995, he has been strategically involved in various key business initiatives involving the mining industry, oil and gas industry and utility companies across northern and western Canada. He is a long-standing member of the Board of Directors for the Akaitcho Business Development Company, an Indigenous NGO providing optional funding for northern business start-ups and building partnerships with other community organizations to provide technical advice, business skills development counselling and access to business capital. Most recently, Mr. Meister worked at Williams Engineering Canada Ltd. ("WEC") as a member of the senior leadership team and WEC Board of Directors. As the Director – Client Development and Project Delivery, Mr. Meister's key responsibility in addition to overseeing operations in northern Canada focused on providing leadership for the company's overall business development and engineering deliverables. Previously, Mr. Meister worked at Stantec (formally Jacques Whitford Stantec AXYS) as the operations manager for northern Canada and Business Development Manager for ARDICOM, an indigenous partnership between Northern Aboriginal Services Company (NASCo), Arctic Cooperatives Limited (ACL) and Northwestel. He has also worked with various communities and key stakeholders, including many Indigenous businesses and regional organizations.

Randy Johnson - Director

Mr. Johnson is the President of Tyler Rental Inc., an Alaska-based enterprise with over 100 employees, which he founded as a start-up in 1989 and subsequently grew to a multi-state enterprise. Mr. Johnson formed Alaska Ship and Drydock ("ASD") to operate the Ketchikan Shipyard under contract with the State of Alaska Department of Transportation and Public Facilities in 1993. Working in conjunction with the Alaska Industrial Development and Export Authority (AIDEA), he guided an \$80 million shipyard expansion project at ASD, including a new 2,500 ton dry-dock, upland ship berthing and an 80,000 square foot ship assembly hall and production support complex. He sold the company to Vigor Industrial in 2012, having grown it into a thriving enterprise with annual revenues of \$35 million and up to 200 employees. In addition to Tyler and ASD, Mr. Johnson's business operations and ownership experience includes such Southeast Alaska enterprises as Ty-Matt Construction and Ketchikan Ready Mix and Quarry. Mr. Johnson currently serves on the Board of Directors for Alaska Power and Telephone (AP&T) and has resided in Ketchikan, Alaska, for 40 years.

Amira V. Abouali - Director

Ms. Abouali has over 14 years of experience in the areas of corporate finance, mergers and acquisitions, banking, corporate governance and corporate/commercial law. Currently, Ms. Abouali is the Vice-President, Legal of Meridian Credit Union Limited, the largest credit union in Ontario and the 2nd largest in Canada with over \$28 billion of assets under management (AUM), over 365,000 client members and more than 1,950 employees. As a member of the senior leadership team, Ms. Abouali's primary responsibilities include structuring and developing Meridian's key strategic initiatives, capital investments, funding requirements, merger and acquisition transactions, new lines of business and its digital platform enhancement and modernization. Ms. Abouali also currently teaches Corporate Finance at the University of Windsor, Faculty of Law. Previously, Ms. Abouali was the General Counsel and Corporate Secretary of Jaguar Mining Inc., a publicly traded TSX company with mining operations in Brazil, and prior thereto was an associate in the business law group at Fasken Martineau DuMoulin LLP from 2008 – 2013. Ms. Abouali holds a Master of Laws degree (LL.M) in Business Law from Osgoode Hall, York University, a Bachelor of Laws degree (LL.B) from the University of Ottawa, and a Hons. Bachelor of Sciences degree in Biology (H.B.Sc – Biology) from Western University.

Alina Islam | Mining Analyst
Daniel Kozielowicz | Research Associate
Shikhar Sarpal | Research Associate
Surya Sankarasubramanian | Research Associate

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Disclosure Statement

Updated May 2, 2025

Recommendation / Target Change			Red Cloud Securities has this percentage of its universe assigned as the following:	
Date	Rating	Target	Status	%
2023-09-22	NA	NA	BUY	55%
2023-10-06	NA	NA	BUY (S)	31%
2023-11-10	NA	NA	HOLD	2%
2023-11-21	NA	NA	TENDER/ SELL	2%
2023-12-22	NA	NA	NA	2%
2024-01-10	NA	NA	UNDER REVIEW	9%
2024-07-10	NA	NA		
2025-05-02	BUY (S)	NA		

Disclosure Requirement

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Company Specific Disclosure Details

Company Name	Ticker Symbol	Disclosures
Ucore Rare Metals Inc.	TSXV:UCU	1,2
Energy Fuels Inc.	TSX:EFR	1,2

1. The analyst has visited the head/principal office of the issuer or has viewed its material operations.
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